

Work Order ID 52359

Tuesday, September 22, 2009 12:27:28 PM

Page 1

Item ID: D3391-021

Accept

Setup Start

Revision ID: H

Stop

Item Name: Fwd Tube Assembly

Start Date: 9/23/2009 Start Qty: 1.00

Cust Item ID:

Required Date: 10/16/2009 Req'd Qty: 1.00

Customer:

Reference:

Approvals: Process Plan: PP-101 Date: 09-22 Tooling: _____ Date: _____

Run Start


QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop


Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
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D3391	Rev H
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100		0.00							
	Skid tubes								
Skid tubes	Memo	0.00							
Skid tubes	Cut extrusion to 46.52 +0.010 -0.020								

Qm 09-10-13 (7)

110		0.00							
	BENDING MACHINE - SKIDTUBES								
CNC Bend 1	Memo	0.00							
CNC Delta 100 Bender	Bend as per Dwg D3391 Using Bend Prog 3391021								

DP 9-10-14

120		0.00							
	QC5- Inspect part completeness to step on W/O								
QC	Memo	0.00							
Quality Control									

2/8 02/10/15

(40)

h2 6.9304

L2 B

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Setup Start

Stop

Start Date: 9/23/2009 Start Qty: 1.00

Required Date: 10/16/2009 Req'd Qty: 1.00

Cust Item ID:

Customer:




Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start

Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130  HAAS I	HAAS CNC VERTICAL MACHINING #1	0.00				1	0		
	Memo 1-Machine as per Folio FA590 Rev. <u>F</u> & Dwg D3391 Rev. <u>H</u> <u>H.A</u> 09/10/21 Identify as D3391-1 2-Deburr	0.00							
140  QC	QC2- Inspect parts off machine FAI/FAIB	0.00				1	0		
	Memo Quality Control	0.00							
150  Mill Conv	CONVENTIONAL MILLING MACHINE	0.00				1	0		
	Memo Conventional Milling Machine Drill X1 Aft cap as per Dwg D3391 .1875" dia	0.00							

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Reference:

Cust Item ID:



Customer:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start

Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160  QC Quality Control	QC2- Inspect parts off machine FAI/FAIB Memo	0.00 0.00	<i>OK 09/10/21</i>			<u>1</u>	<u>0</u>		
170  QC Quality Control	QC8- Inspect parts - second check Memo	0.00 0.00	<i>mmw 09/10/21</i>			<u>1</u>	<u>0</u>		

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Item ID: D3391-021

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Start Date: 9/23/2009 Start Qty: 1.00

Required Date: 10/16/2009 Req'd Qty: 1.00

Cust Item ID:

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursDraw
NumberDraw
Rev.Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

180.

0.00

Skidtubes

Skidtubes

Memo

0.00

1-Drill float bag holes as per Dwg D3391 using DT8798(Do not open tow cap holes to finish size)
(ONLY DRILL HOLES MARKED "A")

2-Drill Remaining two holes for tow cap using DT 8819 Locating off of .1875" holes drilled in previous step

3-Open tow cap holes to .208" as per Dwg D3391

4-Open Tow Ring hole to .640" as per Dwg D3391

5- open float bag holes 0.328" and counter sink as per dwg D3391

6-Deburr & Scribe Batch number Inside aft end.

7-Transfer drill D3391-021 with D3391-023

190

QC5- Inspect part completeness to step on W/O

0.00

QC

Memo

0.00

Quality Control

27 8/26/09

MB
09-10-22

u 9-10-26

④

φ

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Required Date: 10/16/2009 Req'd Qty: 1.00

Cust Item ID:

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursDraw
NumberDraw
Rev.Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

200

Chemical Conversion Coat per QSI005 4.1

0.00



HandFinish

Memo

0.00

Hand Finishing

1 11/10/27

210

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control

① BE 9/10/28

220

Skidtubes

0.00



Skidtubes

Memo

0.00

Skidtubes

1-instal spacers as per dwg D3391

A/R Magnabond 6398 batch: M4247

exp. date: 11/1/30

cure time 12hrs. as per QSI015

2- grind crossbolt flush

3-back drill crossbolt if necessary

MS 1 U
09-10-28

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Item ID:	D3391-021	Accept		Setup	Start	
Revision ID:	H				Stop	
Item Name:	Fwd Tube Assembly					
Start Date:	9/23/2009	Start Qty: 1.00		Cust Item ID:		
Required Date:	10/16/2009	Req'd Qty: 1.00		Customer:		
Reference:						

Approvals:	Process Plan:	Date:	Tooling:	Date:	Run	Start	
	QC:	Date:	SPC (Y/N):	Date:		Stop	

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
230 QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.00	2801/130						
240 Powdercoat Powder Coating	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum M112148 Memo START TIME: 1:15 OVEN TEMPERATURE: 320° FINISH TIME: 1:45	0.00 0.00	BR 09-11-2						
250 QC Quality Control	QC3- Inspect Part Finish Memo	0.00 0.00	MS 09/12/01						

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Setup Start



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Stop



Item Name: Fwd Tube Assembly

Start Date: 9/23/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 10/16/2009 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	----------------	--------------	--------------	---------------	---------------	------------------	----------------

259

0.00



Skidtubes

=7M

09/12/01

(X)

Q

Skidtubes

Memo

0.00

Skidtubes

**** install D3591-1 spacer as per DSI9364 ****

260

0.00

Identify as per dwg & Stock Location: ~~B53516~~

M

09/12/01

(X)

Q

Packaging

Memo

0.00

Packaging

B52793

280

0.00



QC21 - Final Inspection - Work Order Release

QC

Memo

0.00

Quality Control

09/12/08

U 97.12.08

Picklist Print

Page 1

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Work Order ID: 52359



Parent Item: D3391-021RevH



Parent Item Name: Fwd Tube Assembly

Start Date: 9/23/2009

Required Date: 10/16/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	--------------------------	---------------	----------------	--------

D6013-047RevA Manufactured No



Skidtube Material

DP 9-10-13

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

LG

63

23935

6

26547

57

D3670-4-200RevA Manufactured No



SPACER

260 Each 167.0000 4.0000



Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

167

46106

4

47122

36

48198

42

48269

85

(4K) MB 09-10-28

Picklist Print

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Work Order ID: 52359



Parent Item: D3391-021RevH



Parent Item Name: Fwd Tube Assembly

Start Date: 9/23/2009

Required Date: 10/16/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D3401-041RevB		Manufactured	No			260	Each	25.0000	1.0000			

Tow Cap Assembly

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	25	
36216	1	
41931	8	
46029	16	

X1 21 09/12/01

D3564-13RevD

Manufactured No



260 Each 14.0000 1.0000



Wearshoe

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse	1352059	
FP17	1	
50270	1	
Main Warehouse		
ST	13	
45409	3	
46495	10	

(X) 21 09/12/01

Picklist Print

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Work Order ID: 52359



Parent Item: D3391-021RevH



Parent Item Name: Fwd Tube Assembly

Start Date: 9/23/2009

Required Date: 10/16/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D3566-13RevC		Manufactured	No			260	Each	53.0000	1.0000			

Gasket

Warehouse Loc Qty Loc Code

Location

Main Warehouse

FP

44

51606

44

Main Warehouse

ST

9

45717

1

50265

8

AN960C10L

Purchased

No

260

Each

6,964.000

10.0000



washer

Warehouse Loc Qty Loc Code

Location

OFFSHORE

FG

M 112933

100

103585

100

Main Warehouse

ST

6864

112116

1864

112612

5000

(x1) M 09/12/01

(x10) M 09/12/01

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Shop Packet Print

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Picklist Print

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Parent Item: D3391-021RevH



Parent Item Name: Fwd Tube Assembly

Start Date: 9/23/2009

Required Date: 10/16/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
AN3C4A 		Purchased	No			260	Each	2,076.000	10.0000			
BOLT												

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

2076

112082

14

112314

140

112612

246

112720

1176

112724

500

M113121

(X10) M 09/12/09

D3672-1RevB

Manufactured

No

260

Each

1,186.000 4.0000



Phenolic Washer

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

686

39275

19

42329

121

(47628)

546

Main Warehouse

ST117

500

51674

500

(X4) M 09/12/09

AELS-1032-130

Purchased

No

260

Each

0.0000 2.0000



INSERT

M

M111529 09/12/09

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SHO 0000

RETURN

ENGINEERING

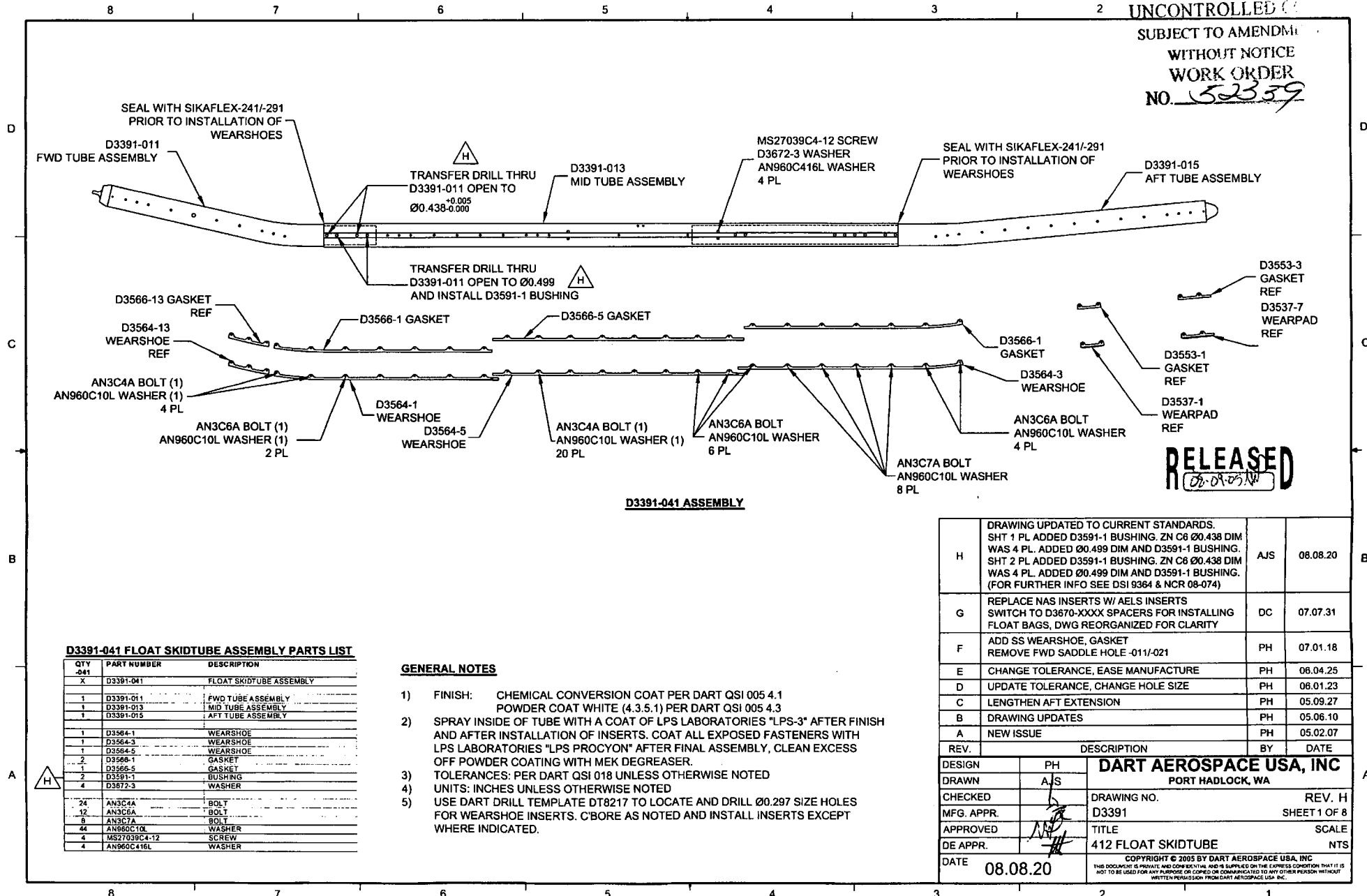
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SUBJECT TO AMENDMENT

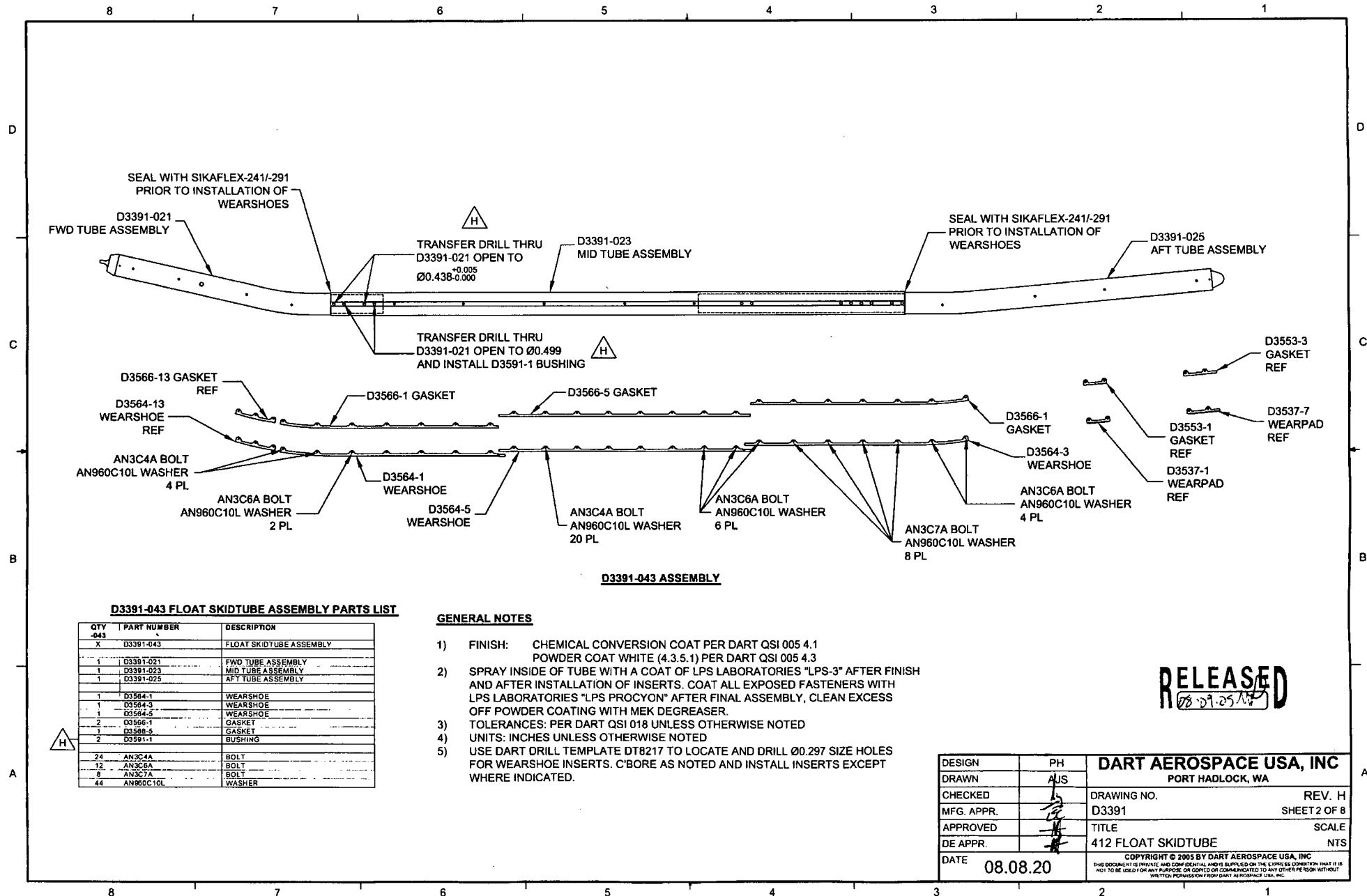
WITHOUT NOTICE

WORK ORDER

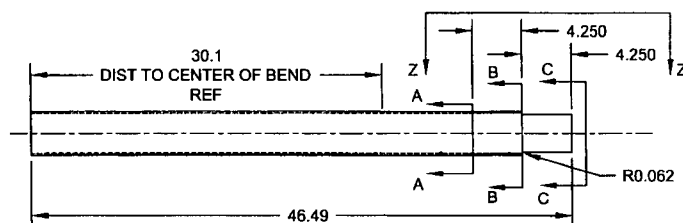
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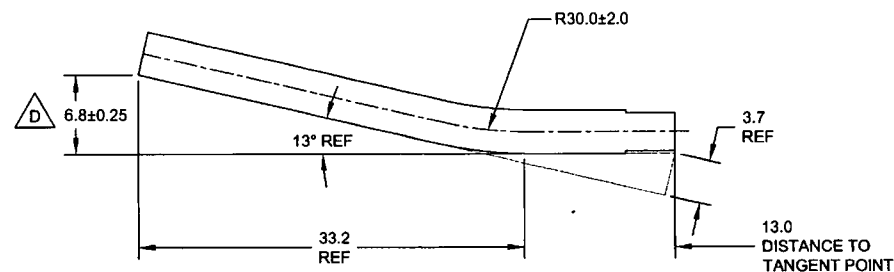
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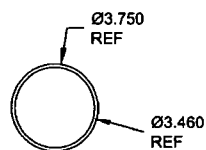
52359



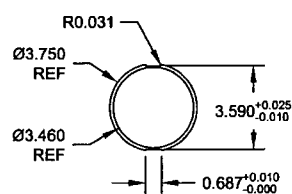
D3391-1 CUTTING DETAIL
(MAKE FROM D6013-047 SKIDTUBE MATERIAL)



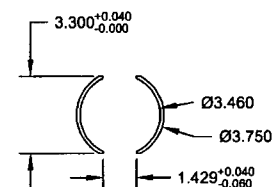
D3391-011/-021 BENDING DETAIL
(MAKE FROM D3391-1)



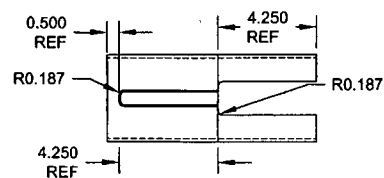
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SCALE 2X



SECTION B-B
SCALE 2X



SECTION C-C
SCALE 2X

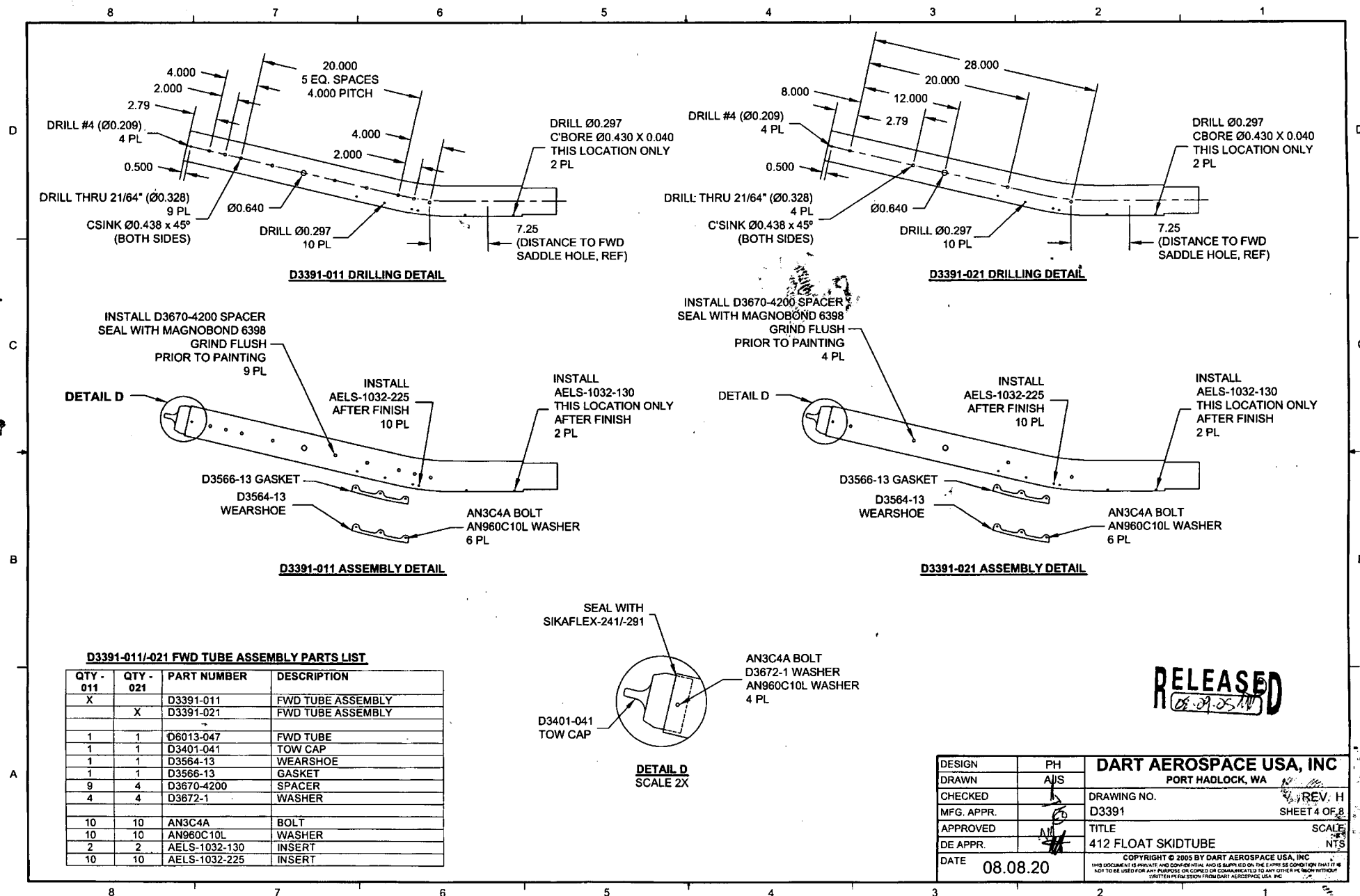


VIEW Z-Z
SCALE 2X

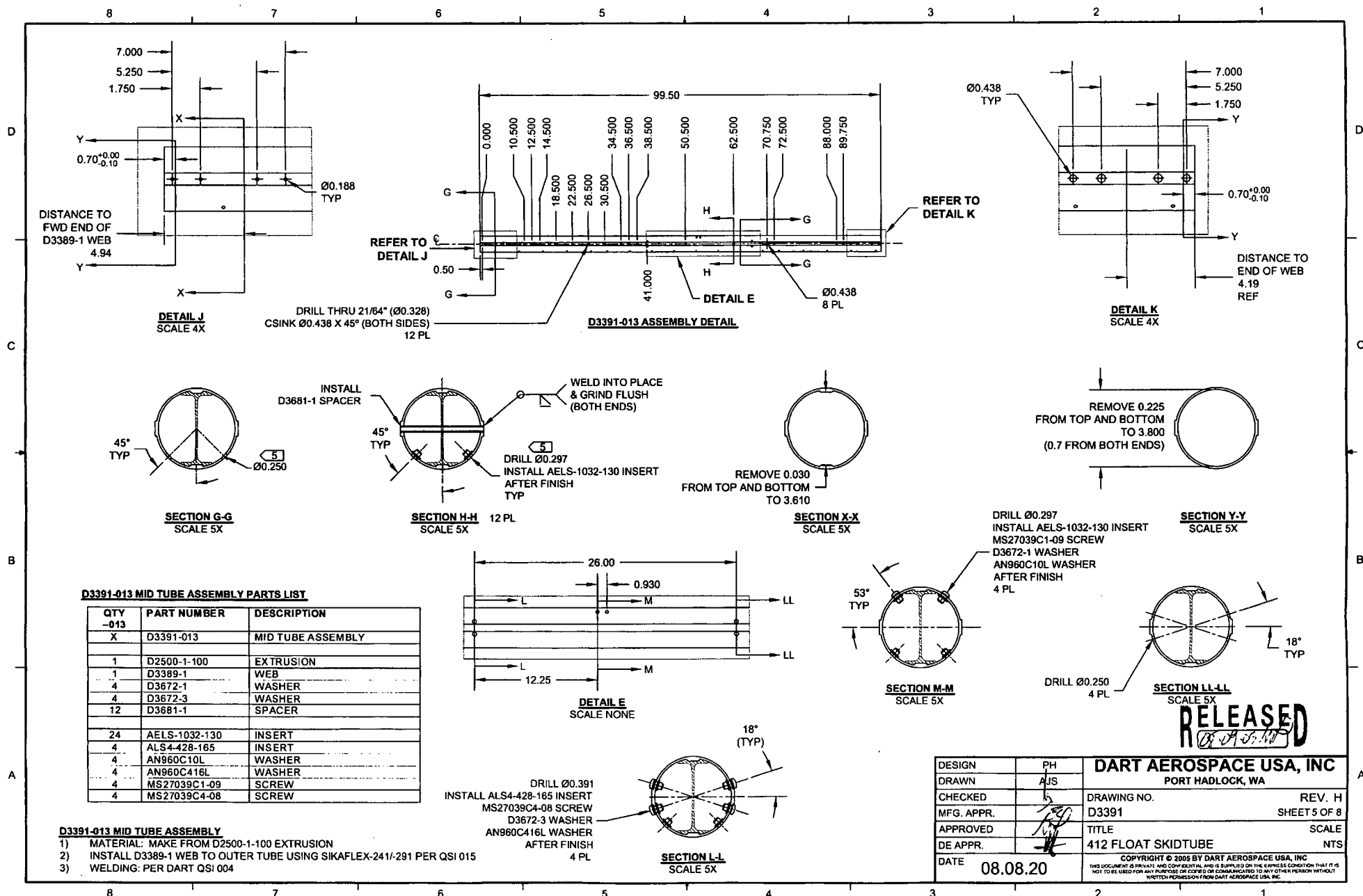
RELEASED
8-8-05/11

DESIGN	PH	DART AEROSPACE USA, INC	
DRAWN	AJS	PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. H
MFG. APPR.		D3391	SHEET 3 OF 8
APPROVED		TITLE	SCALE
DE APPR.		412 FLOAT SKIDTUBE	NTS
DATE	08.08.20	<small>COPYRIGHT © 2005 BY DART AEROSPACE USA, INC THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS UNDERSTANDING THAT IT IS NOT TO BE USED FOR ANY PURPOSES OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC</small>	

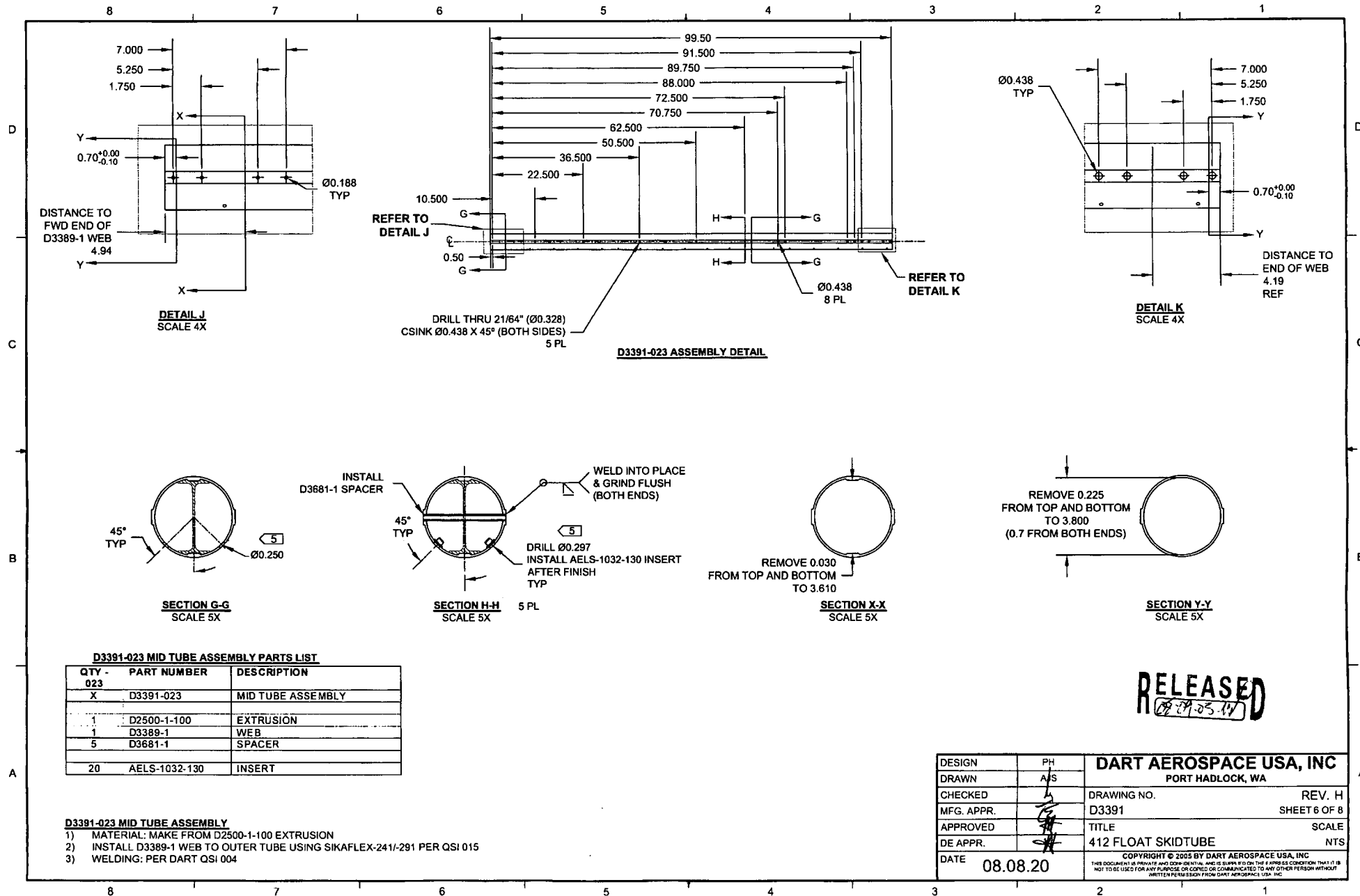
52359



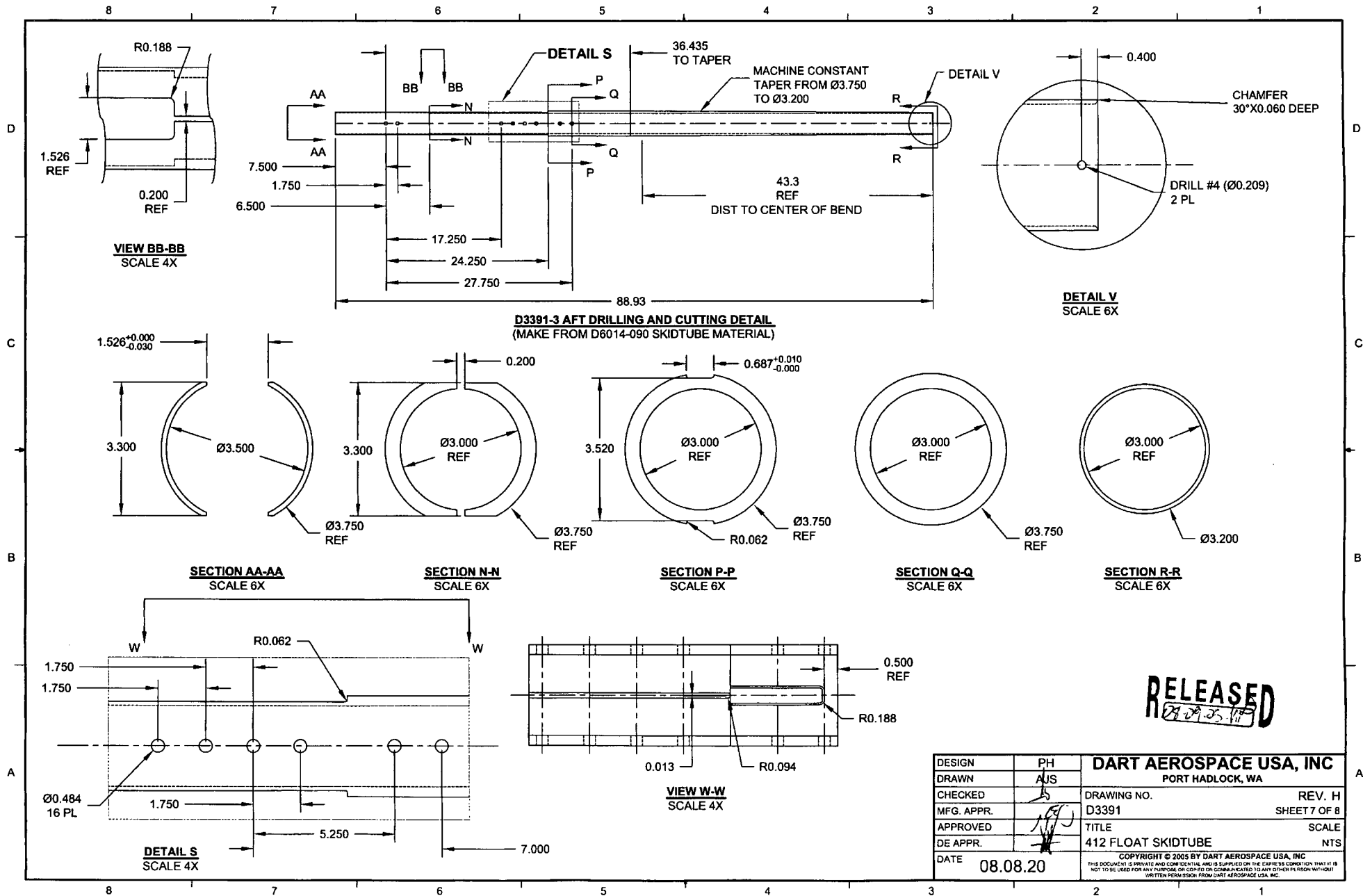
52359



52359



52359



D3391-015 BENDING AND DRILLING DETAIL
(SEE CBORE DETAIL BELOW)

INSTALL D3670-4200 SPACER
SEAL WITH MAGNOBOND 6398
GRIND FLUSH
PRIOR TO PAINTING
14 PL

D3391-015 ASSEMBLY AND CBORE DETAIL
(SEE TABLE)

D3391-015 AFT TUBE ASSEMBLY PARTS LIST

QTY - 015	QTY - 025	PART NUMBER	DESCRIPTION
X	X	D3391-015	AFT TUBE ASSEMBLY
		D3391-025	AFT TUBE ASSEMBLY
1	1	D6014-090	AFT TUBE
1	1	D2646	AFT CAP
1	1	D3537-1	WEARPAD
1	1	D3537-7	WEARPAD
1	1	D3553-1	GASKET
1	1	D3553-3	GASKET
14	4	D3670-4200	SPACER
2	2	D3672-1	WASHER
14	14	AELS-1032-130	INSERT
12	12	AELS-1032-225	INSERT
4		ALS4-428-165	INSERT
6	6	AN3C4A	BOLT
4	4	AN3C5A	BOLT
10	10	AN960C10L	WASHER

CBORE HOLES MARKED CB1-CB4 AS FOLLOWS AND
INSTALL AELS-1032-XXX AFTER FINISH AS NOTED

HOLES MARKED	QTY D3391-015	QTY D3391-025	CBORE	P/N
CB1	12	12	Ø0.430 X 0.170	AELS-1032-225
CB2	4	4	Ø0.430 X 0.170	AELS-1032-130
CB3	6	6	Ø0.430 X 0.040	AELS-1032-130
CB4	4	4	NONE	AELS-1032-130

D3391-025 BENDING AND DRILLING DETAIL
(SEE CBORE DETAIL BELOW)

INSTALL D3670-4200 SPACER
SEAL WITH MAGNOBOND 6398
GRIND FLUSH
PRIOR TO PAINTING
4 PL

D3391-025 ASSEMBLY AND CBORE DETAIL
(SEE TABLE)

RELEASED
08-09-05-149

DART Aerospace USA, INC.
PORT HADLOCK, WA

DESIGN PH
DRAWN AJS
CHECKED [Signature]
MFG. APPR. [Signature]
APPROVED [Signature]
DE APPR. [Signature]
DATE 08.08.20

DART Aerospace USA, INC.
DRAWING NO. D3391
TITLE 412 FLOAT SKIDTUBE
REV. H SHEET 8 OF 8
SCALE NTS
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